From provider-initiated CT for HIV for TB patients to HIV/AIDS care

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International Union Against Tuberculosis and Lung Disease

The Union

The Union

- HIV department set up in 2003
- Initially 3 staff, now 8
- Approach using TB services as an entry point being field tested in Myanmar, Benin and DR Congo

Objectives of the presentation

- To discuss why TB services are an ideal entry point for HIV diagnosis and care
- To discuss selected key questions about management of TB and HIV/AIDS in co-infected patients
- To discuss selected outstanding questions

Context of presentation

- Exploring ways
  - to strengthen TB, HIV care and general health services in low-income settings where HIV fuels TB
  - to ensure that health services promote and facilitate *sero-status based approach to HIV/AIDS prevention and care*

Sero-status based approach to HIV/AIDS prevention and care

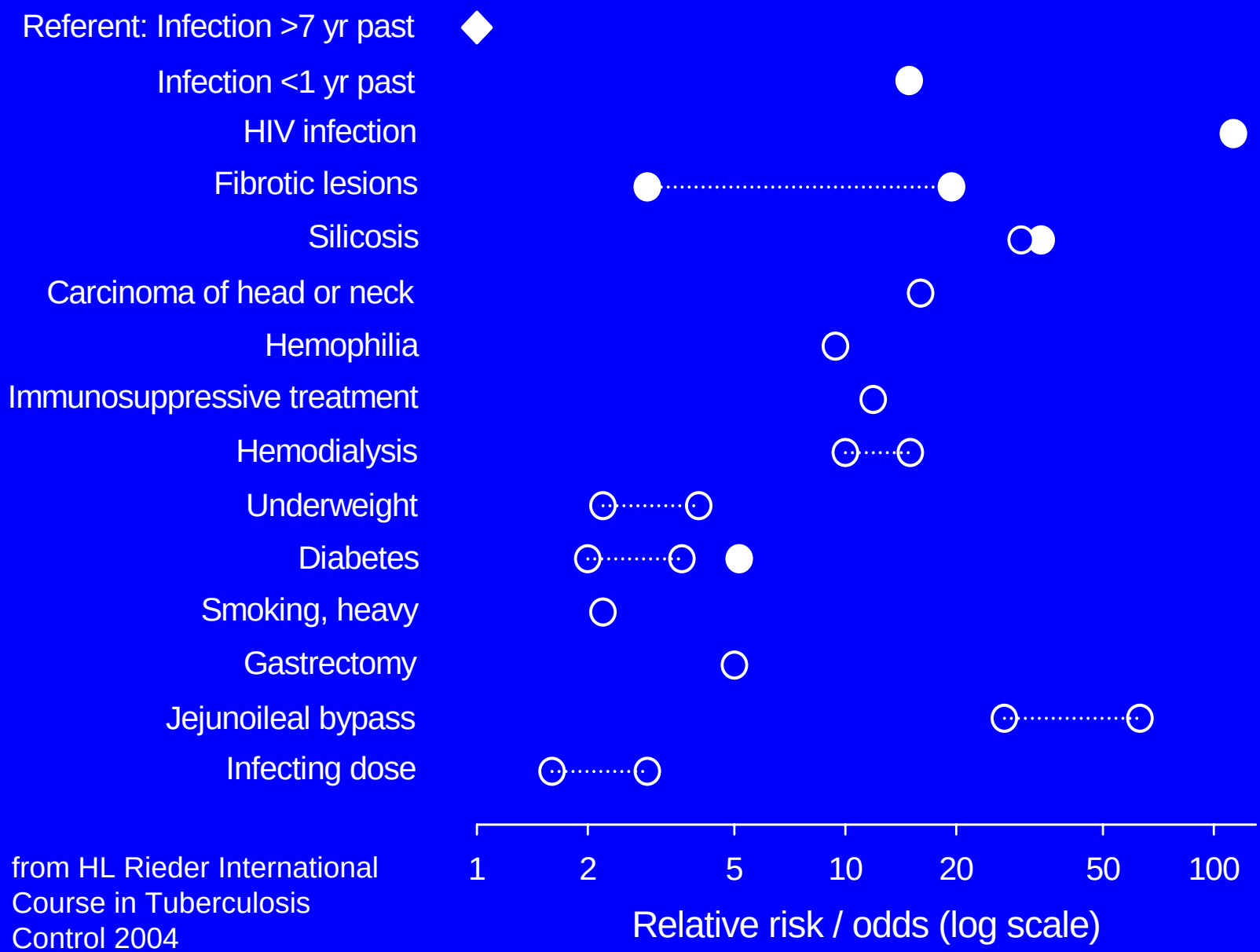
(De Cock KM et al, *Lancet 2003;* 362: 1847)

- Your undiagnosed HIV infection can give your partner HIV
- Your partner's undiagnosed HIV infection can give you HIV
- Undiagnosed HIV infection in pregnant and breast- feeding women can give children HIV

Sero-status based approach to HIV/AIDS prevention and care (2)

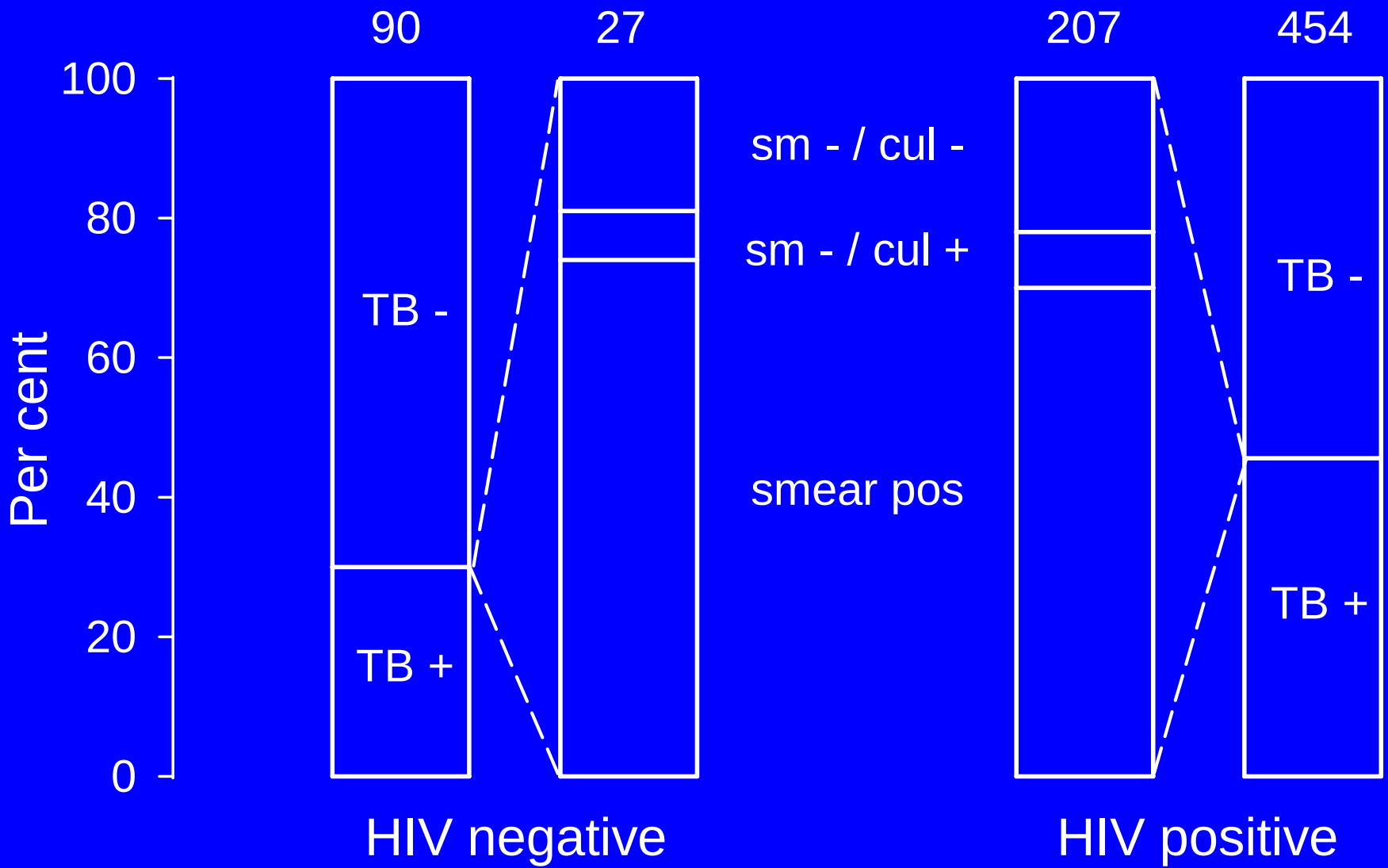
- Learn your HIV status
- Disclose your HIV status to your partner before you have sex
- Never have unprotected sex with someone who is HIV+ or whose HIV status you are uncertain of
- If you are HIV+, abstain from sex or always use a condom when having sex
- If you are HIV+, seek medical advice, care and support
- Learn your HIV status before or during pregnancy, and, if you are HIV+, seek PMTCT service

Selected Risk Factors for Tuberculosis Given that Tuberculous Infection has Occurred



from HL Rieder International Course in Tuberculosis Control 2004

Tuberculosis Among Primary Health Care Attendees with Prolonged Cough, Harare, Zimbabwe, 2003 (?)



Munyati SS, et al. Clin Infect Dis 2005;40:1818-27

WHO Clinical staging system for adults and adolescents

Clinical Stage I

- Asymptomatic
- Generalized lymphadenopathy

Performance scale 1: asymptomatic, normal activity

Clinical Stage II

- Weight loss <10% of body weight
- Minor mucocutaneous manifestations (seborrhoeic dermatitis, prurigo, fungal nail infections, recurrent oral ulcerations, angular cheilitis)
- Herpes zoster within the last five years
- Recurrent upper respiratory tract infections (i.e. bacterial sinusitis)

And/or *performance scale 2*: symptomatic, normal activity

Clinical Stage III

- Weight loss >10% of body weight
- Unexplained chronic diarrhoea, >1 month
- Unexplained prolonged fever (intermittent or constant), >1 month
- Oral candidiasis (thrush)
- Oral hairy leucoplakia
- **Pulmonary tuberculosis**
- Severe bacterial infections (i.e. pneumonia, pyomyositis)

And/or *performance scale 3*: bedridden <50% of the day during last month

Clinical Stage IV

- HIV wasting syndrome
- Pneumocystis carinii/ jiroveci pneumonia
- Toxoplasmosis of the brain
- Cryptosporidiosis with diarrhoea >1 month
- Cryptococcosis, extrapulmonary
- Cytomegalovirus disease of an organ other than liver, spleen or lymph node (e.g. retinitis)
- Herpes simplex virus infection, mucocutaneous (>1month) or visceral
- Progressive multifocal leucoencephalopathy
- Any disseminated endemic mycosis
- Candidiasis of oesophagus, trachea, bronchi
- Atypical mycobacteriosis, disseminated or pulmonary
- Non-typhoid Salmonella septicaemia
- Extrapulmonary tuberculosis
- Lymphoma
- Kaposi's sarcoma
- HIV encephalopathy

And/or *performance scale 4*: bedridden >50% of the day during last month

Advantages of HIV diagnosis in TB patients

- OI prevention and management & ART
- Prevention of death
- Appropriate management of two conditions in one patient
- Offer testing and other services to partner
- Prevention of HIV transmission
- Psycho-social benefits

TB services: an entry point to HIV care?

- TB services have extensive experience in management of chronic conditions
- This experience relevant to HIV care, especially ART
- Substantial number of HIV-infected individuals can be detected through TB services

TB services: an entry point to HIV care? (2)

- Commitment and resources required
- Reliable diagnosis and EQA
- Reliable supply management of high quality drugs
- Standardised treatment regimens,

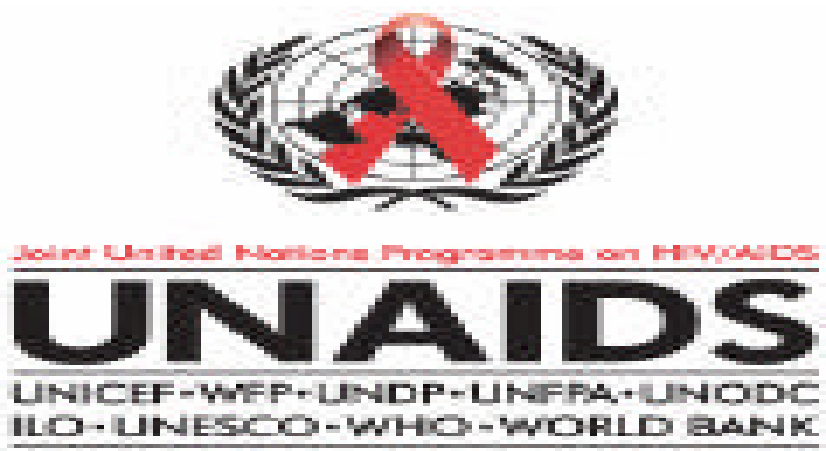
  with a re-treatment regimen
- Recording and reporting system and outcome analysis
- Adherence support for life-long treatment, treatment literacy

TB services: an entry point to HIV care? (3)

- Libamba E et al, *Int J Tuberc Lung Dis* 2005; 9: 1062
- Friedland G et al, *Clin Inf Dis 2004*; 38: S421
- Coetzee D et al, *AIDS 2004*; 18: 887

HIV testing: current basic principles

- UNAIDS and WHO policy statement in June 2004 :
  - 3 ”C’s”: counselling, confidentiality and (informed) consent
  - 4 types of testing: 3 are voluntary



4 types of HIV testing

1. *Client*-initiated testing (VCT)
2. *Provider*-initiated diagnostic testing

- when person has symptoms and signs suggestive of HIV infection, such as TB

3. *Provider*-initiated routine offer of HIV testing to asymptomatic persons

- antenatal clinics, STI clinics, injecting drug use treatment services, medical wards where HIV prevalent and HIV treatment available

4. Mandatory HIV screening

Provider-initiated diagnostic testing and counseling

- Purpose: HIV diagnosis and follow up care and management
- It follows
  - Discussion about need for CT short
  - Pre-test counseling short
  - If result HIV-negative: advice how to remain negative for life, testing of partner
  - If result HIV-positive: advice on prevention and (referral for) care, testing of partner

Should we offer CT for HIV in a TB clinic?

TB patients' views in Kinshasa, DRC, (Dr P Kimpanga, University of North Carolina):

- 99% TB patients (100% HCWs) considered CT for HIV necessary for TB patients
- 96% (82%) felt it should take place at beginning of TB treatment
- 67% (38%) felt it could be offered at the time of TB investigations

How can we offer CT for HIV at a TB clinic?

- A common barrier: no time
  - Ideal duration of pre-test counselling of a TB patient?
  - A real issue in many settings operating with low staffing levels and must be recognised
  - Need for innovative approaches (ways to utilise DOTS visits, group counseling, lay counselors etc)
  - Need for training and supervision
  - Provide sample ’scripts’ for pre- and post-test counseling

Sample scripts

- Pre-test counseling
- Post-test counseling when
  - Result negative
  - Result positive

A sample script for pre-test counseling

”HIV infection is common among TB patients in Bulawayo. Our clinic offers HIV testing to everybody with TB because there are several benefits of knowing whether one is infected or not. Some of them are:

- *We can offer you HIV care, including ART, that can improve your health, if you are found to be infected.*
- *We advice you how to prevent spreading HIV to others.*
- *We can offer you services to prevent mother-to-child HIV transmission if patient is female).*
- *Knowing your HIV-status enables you to plan for your future.*

To ensure that you get the necessary services, it is important to know whether or not you have HIV. Unless you object, as part of your clinic visit today, you will receive an HIV test. What questions can I answer for you about this? ”

A sample script for post-test counseling (negative result)

" *Your HIV test result is negative. It is important that you will remain free from HIV for life. HIV infection is common in our community. You need to avoid unprotected sex with a partner who is HIV-positive or whose HIV status is not known. Sometimes couples have different HIV results. You mentioned earlier that you have a wife. Do you know whether she has ever been tested for HIV?* (Assuming he does not know:)

In that case, I recommend that you will go together to Nkulumane New Start Center for her to be counseled and tested.

If she does not have HIV, the two of you can do enjoy your relationship as you like, always remembering the need to be mutually faithful.

If your wife is HIV-positive, you must practice safer sex and always use condoms to protect you from HIV. It is advisable not to have sex until your wife is tested and you find out if she has HIV.

We have condoms available in the clinic and you are welcome to take some.

I hope you will ask your wife to be tested by your next visit when we will discuss this. Do you have any questions? "

A sample script for post-test counseling (positive result)

"I know how difficult it can be receiving this result—learning that you have HIV. It is normal to feel upset and overwhelmed at first. You need to take time to adjust to this, and I know that in time you will be able to cope. This clinic is here to help you. Also, most people find it helpful to tell someone about their problems and get support. Is there anyone that you can talk to about what has happened today?

In addition to support from family, you need medical treatment that can help you feel better even though you have TB and HIV infection. In this clinic we provide you with other tests for HIV, such as CD4 count.

As you know, HIV can be spread through sex. It is therefore important that your husband is tested right away to determine his result. Do you think you he would be interested to visit this clinic with you when you come here next time? Since you are attending TB care in this clinic, we can assist your family with testing for both conditions?"

Selected major points about management of co-infected patients

TB treatment in HIV-infected patients

- TB treatment always the top priority
- TB treatment regimens *same* in both HIV-infected and uninfected individuals
- 2HRZE+4HR the most efficacious regimen (Jindani A et al, *Lancet 2004*; 364: 1244)

ART in TB patients:

2 unresolved questions

1. When to start ART?

- High-pill burden
- Overlapping toxicities
- Risk of IRD
- Early mortality

2. Which ART regimen to use?

- Rifampicin associated drug-drug interactions

When to start ART in TB patients?

From: Scaling up antiretroviral therapy in resource-limited settings: treatment guidelines for a public health approach, 2003 revision

When to start ART in a TB patient? (2)

CD4+T-cell count (cells/mm³)	Current recommendation
<200 (in EPTB irrespective of count)	As soon as TB treatment tolerated (between 2 weeks and 2 months)
200-350	After 2 months of TB treatment
>350	After completion of TB treatment (unless other clinical stage IV conditions are present)
Not available	In EPTB as <200; if no other stage IV condition present as >350

When to start ART in a TB patient? (3)

CD4+T-cell count (cells/mm³)	Current recommendation in SA
<50 (or other serious HIV-related illness present))	After 2 weeks of TB treatment
50-200	After 2 months of TB treatment
>200	Reassess after completion of TB treatment (if no history of clinical stage IV condition)
Not available	Not applicable?

Adhere always to national guidelines

Which ART regimen to use?

Drug-drug interactions: rifampicin & NNRTIs and PIs

- Cytochrome P450 system
- Rifampicin reduces NNRTI and PI levels
  - Nevirapine level reduced by 60%: to be used as a last resort
  - Efavirenz level reduced by 30%: should dose be increased from 600mg once a day to 800mg once a day?
  - If PI used, ritonavir-boosted protease inhibitors (such as, lopinavir, saquinavir) preferable

Preventive therapies in co-infected patients

- Cotrimoxazole Preventive Therapy (CPT) strongly recommended
- Start before ART, for example, 2 weeks *after* TB treatment (in South Africa, after 1 month)
- Role of secondary Isoniazid Preventive Therapy (IPT)?

Adhere always to national guidelines

Outstanding questions

- TB - an entry point: what is the exit point?
- Are NTPs effective in providing collaborative TB/HIV services?
- How collaborative TB/HIV activities can strengthen general health services and health systems?

Outstanding questions (2)

- Can collaborative TB/HIV services overwhelm TB program performance? What must be done to prevent decline of TB treatment success rates?
- Are there settings where provider-initiated CT for HIV leads to shunning of TB services? How to prevent it?

Outstanding questions (3)

- Stigma? TB 1 and TB 2 in Zimbabwe…

  Perhaps, it exists with or without CT for HIV?
- What is the role of sero-status based approach to HIV/AIDS and expanding access to ART in destigmatising HIV?
- What is the role of family / community based approaches in overcoming obstacles?

What we know certainly

- More TB bacilli alive than even before
- Team effort – a must
- Need for strong TB services and NTPs
  - That can manage successfully HIV-negative individuals with TB
  - That can manage successfully HIV-positive individuals with TB

Acknowledgements

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Thank you!